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PATENT & TRADEMARK OFFICE

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

ATSUKI KASASHIMA

Appln. No.: 10/684,688

Confirmation No.: 3405

Filed: October 15, 2003

For: GOLF BALL

Docket No: Q77964

Group Art Unit: 3711

Examiner: Alvin A. HUNTER

SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of $500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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WASHINGTON OFFICE
23373
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Date: December 12,2006

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

The real party in interest is the Assignee, BRIDGESTONE SPORTS CO., LTD., by virtue of an assignment recorded on October 15, 2003, at reel 014605, frame 0987.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, judicial proceedings or interferences known to the Appellant which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-24 are pending. Claims 1-21 have been rejected, and are the subject of this appeal. Claims 22 through 24, which were added in the Amendment filed May 20, 2004, have not been addressed by the Examiner despite repeated requests by the Appellant. Nonetheless, because claims 22-24 depend directly or indirectly on claim 1, Applicant submits that they should be considered along with claim 1.

IV. STATUS OF AMENDMENTS

On July 5, 2006, after receiving the Final Office Action mailed on April 5, 2006, Appellant filed a Response Under 37 C.F.R. 1.116. Because none of the claims were amended at that time, the claims stand as presented before the April 5, 2006, Office Action.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates to a golf ball and, more particularly, to a golf ball having improved flight performance as a result of reducing the percent occupation of the total area of lands on the spherical surface of the golf ball. [1] When the spherical surface of a golf ball is provided with flat surface regions, the proportion of lands as parts of the spherical surface may be significantly reduced.[2]

According to an aspect of the invention, and as set forth in claim 1, there is provided a golf ball having (Figs. 1, 2 and 4) an outermost spherical surface 12 wherein a plurality of flat surface regions 11 are formed on said outermost spherical surface 12, where areas of said outermost spherical surface which are not formed of said flat regions 11 are land areas 1r on said outermost surface, and a dimple 1d is disposed within said plurality of the flat surface regions.[3]

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[1] Specification at page 2, lines 9-12.

[2] Specification at page 2, lines 14-17.

[3] Specification at page 1, lines 19-35.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(1) Claims 1-4, 6-8, 11, 12, 14, 17, 18 and 19 are rejected under § 102(e) as being anticipated by Sullivan (US 6,884,183).

(2) Claims 5, 9, 10 and 13 are rejected under § 103(a) over Sullivan in view of an obvious design choice.

(3) Claims 20 and 21 are rejected under § 103(a) over Sullivan in view of U.S. Patent No. 5,566,943 to Boehm.

VII. ARGUMENT

(1) Claims 1-4, 6-8, 11, 12, 14, 17, 18 and 19 stand rejected under § 102(e) as being anticipated by Sullivan (US 6,884,183).

Appellant respectfully submits that this rejection is in error because Sullivan (US 6,884,183) fails to disclose "a plurality of flat surface regions formed on the outermost spherical surface," as recited in claim 1.

In particular, Sullivan is related to polygonal dimples, not dimples disposed on flat surfaces. (col. 4, lines 45-57). Lying in between the dimples are areas Sullivan refers to as inter-dimple spacings 20 and inter-sectional spacings 22. (*See* Fig. 3B). Notably, Sullivan also discloses that these inter-dimple spacings 20 and inter-sectional spacings 22 are the width of the land surface segments of Sullivan's golf ball 10. (*See* Fig. 3B). However, Sullivan fails to provide any support, either explicitly or implicitly that these land surface segments are flat.

The Examiner alleges that Sullivan does disclose a plurality of flat surface regions formed on the outermost spherical surface. Specifically, in the Advisory Action of July 31, 2006, the Examiner disagrees with Appellant's assertion that Sullivan does not teach flat regions on the outermost surface of the golf ball stating:

> If not mistake[n] a golf ball is suppose[d] to be spherical such as the golf ball in which the applicant's dimple pattern is shown to be on. "Spherical" does not imply that the golf ball must be shaped exactly circular.

(Advisory Action of July 31, 2006). Additionally, the Examiner provides an annotated FIG. 3A with a tangent line constructed "to the side surface of one of the dimples." (Advisory Action, p. 2). Further, the Examiner states that as shown by the drawing, the line is parallel to the surface of the outer portions of the dimples. Then, the Examine somehow reasons that this can only indicate that the surface had to be milled in such a fashion that it is flat before placing the additional dimples within it. Based on this reasoning, the Examiner concludes that this is evidence enough that the dimples must comprise flat regions.

In contrast, Appellant submits that the Examiner has misread the reference. First, no portion of Sullivan indicates that the golf ball is milled as alleged in the Office Action. Rather, the golf ball may be molded. Thus, the reasoning applied by the Examiner within the Advisory Action of July 31, 2006, is unsupported. In a related statement in the Office Action of April 5, 2006, the Examiner also presumes that the polygon dimples were formed in flat regions first before contouring with the dimples. (Office Action of April 5, 2006, p. 8) This statement is also unsupported by Sullivan. In each of the above instances, the Examiner is relying on conclusory remarks unsupported by Sullivan.

Second, the statement that the dimples may comprise flat regions is also unsupported. Sullivan discloses that conventional dimples are circular depressions that slope away from the outer surface of the ball to form the depression. (col. 1, lines 16-19). Furthermore, Sullivan discloses that its dimples differ from the conventional dimples as they are polygonal dimples. Thus, as the dimple is disclosed as a depression, there is no support within Sullivan that the dimples comprise flat regions. In any event, as a depression from the outermost spherical surface of the golf ball, the dimple of Sullivan cannot comprise a flat surface region on the outermost surface of the golf ball.

Third, Sullivan fails to disclose any flat surface regions formed on the outermost spherical surface and, further, the existence of any flat surface regions is not inherent within the reference's disclosure. As expressly disclosed by Sullivan, the golf ball 10 comprises a plurality of dimples 12 separated by outer un-dimpled or land surfaces (i.e., inter-dimple spacings 20 and inter-sectional spacings 22). Because the dimples are depressions they cannot comprise a flat surface region on the outermost surface of the golf ball and, thus, the land surfaces must be flat for Sullivan to anticipate claim 1.

As illustrated by each of FIGS 3A and 3B, the land surfaces include both inter-sectional spacings 22 and inter-dimple spacings 20. The Examiner seems to allege that these must somehow comprise flat surface regions. But, based on the Sullivan's disclosure, this position is wholly unsupported.

First, Sullivan discloses that the outer surface is substantially spherical. (col. 3, line 4). Absent is any support for any flat regions on the outermost surface. Assuming, *arguendo*, that the Examiner would take the position that substantially spherical description indicates that the outer surface is not perfectly spherical and, thus, flat regions are inherent, Appellant submits that because flat regions are not necessarily present, this would not be a proper anticipation rejection. (*See* Continental Can Co. USA v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). For example, the presence of dimples may themselves provide an outer surface that is not perfectly spherical.

Second, FIGS. 3A, 3B, 4 and 5 provide no support for the Examiner's position that the inter-sectional spacings 22 and the inter-dimple spacings 20 include any flat regions. The Examiner attempts to show in the Advisory Action that FIG. 3A indicates a flat region. However, the outer portions of this figure merely indicate edge portions of the dimples as the dimple pattern that is repeated throughout the ball has not been completed at the edge of the figure. This outer edge surface is actually the upper portion of the hollow of a dimple. In other words, there is no support that this outer edge portion of the figure represents any of the inter-sectional or inter-dimple spacings 20 and 22. Moreover, the inter-sectional spacings 22 and the inter-dimple spacings 20 are clearly illustrated running across the figures and clearly appear to be continuous. If Sullivan is to disclose via the figures that the spacings comprise flat regions, the figures must illustrate a line where adjoining flat surfaces meet. Specifically, if the golf ball is substantially spherical and the spacings contain flat regions as alleged, then there must be some angular intersection between flat regions if they are to reside on the spherical surface. However, no such indication exists in any of the figures of Sullivan. Thus, the figures only support that both the inter-sectional spacings 22 and the inter-dimple spacings 20 run continuously around the circumference of the golf ball in the manner of an arc, following the spherical surface of the ball, and without any flat regions.

Therefore, Appellant submits that claim 1 is allowable for at least this reason. Additionally, Appellant submits that because this same feature is recited in claims 8, 13 and 14, these claims are allowable for the same reasons set forth above. Furthermore, Appellant submits that claims 3-4, 6-7, 11-12 and 18-19 are allowable, at least because of their dependency.

(2) Claims 5, 9, 10 and 13 stand rejected under Sullivan in view of an obvious design choice.

The Examiner concedes that Sullivan does not disclose the number of dimples recited in these claims. In order to compensate for this deficiency, the Examiner states that it would have been obvious for one of ordinary skill in the art to have this number of dimples to reduce the land area of the golf ball.

However, despite this alleged modification proposed by the Examiner, the combination fails to compensate for the above noted deficiency of Sullivan. Thus, Appellant submits that claims 5, 9, 10 and 13 are allowable, at least because of their dependency.

(3) Claims 20 and 21 have been rejected as being unpatentable over Sullivan in view of U.S. Patent No. 5,566,943 to Boehm.

The Examiner concedes that Sullivan does not disclose the dimple having a bottom parallel to the surface region. To compensate for this deficiency, the Examiner applies Boehm. However, because Boehm fails to compensate for the deficiency noted above with regard to independent claims 1, 8, 13, 14 and 17, Appellant submits that dependent claims 20 and 21 are allowable, at least, because of their dependency.

Conclusion

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: December 12, 2006

CLAIMS APPENDIX

CLAIMS 1-24 ON APPEAL:

1. A golf ball having an outermost spherical surface wherein a plurality of flat surface regions are formed on said outermost spherical surface, where areas of said outermost spherical surface which are not formed of said flat regions are land areas on said outermost surface, and a dimple is disposed within said plurality of the flat surface regions.

2. The golf ball of claim 1 wherein said flat surface regions are polygonal or circular plane regions.

3. The golf ball of claim 2 wherein a dimple is disposed within each said polygonal or circular plane region.

4. The golf ball of claim 3 wherein the dimple is centered within each said polygonal or circular plane region.

5. The golf ball of claim 3, including 300 to 550 dimples.

6. The golf ball of claim 1 wherein a total area of the land areas on the spherical surface accounts for less than 20% of the entire golf ball surface area.

7. The golf ball of claim 1 wherein an annular plane region is formed between ridge-lines delimiting the flat surface and the dimples.

8. A golf ball having an outermost spherical surface wherein a plurality of flat surface regions are formed on said outermost spherical surface, where areas of said outermost spherical surface which are not formed of said flat regions are land areas on said outermost surface, and a dimple is disposed within said plurality of the flat surface regions, wherein some of the flat surface regions devoid of dimples are arranged on the spherical surface of the ball.

9. The golf ball of claim 1 wherein the flat surface regions comprises hexagonal plane regions delimited by six linearly extending ridge-lines.

10. The golf ball of claim 9 wherein the flat surface regions comprise pentagonal plane regions delimited by five ridge-lines.

11. The golf ball of claim 1 wherein the dimple has a circular shape as viewed in plane.

12. The golf ball of claim 9 wherein each of the ridge-lines has substantially no width.

13. A golf ball having an outermost spherical surface wherein a plurality of flat surface regions are formed on said outermost spherical surface and the areas except said flat surface

regions thereon are left as lands and a dimple is disposed within said plurality of the flat surface regions;

wherein the flat surface regions comprises hexagonal plane regions delimited by six linearly extending ridge-lines; and

wherein an apex formed by an intersection of three ridge-lines each serving as a boundary between two adjacent hexagonal plane regions is positioned at a radially farthest point from a center of the golf ball.

14. A golf ball having an outermost spherical surface wherein a plurality of flat surface regions which comprises hexagonal plane regions and pentagonal plane regions are formed on said outermost spherical surface and a dimple is disposed within said plurality of the flat surface regions wherein pentagonal units which are each formed by disposing five hexagonal plane regions closely about one pentagonal plane region are arranged on the spherical surface of the ball.

15. The golf ball of claim 14 wherein three pentagonal units are arranged on a common latitude at intervals of 120° with respect to the axis connecting two poles of the ball.

16. The golf ball of claim 15 wherein total six pentagonal units are arranged in each hemisphere divided by an equator of the ball.

17. A golf ball having an outermost spherical surface wherein a plurality of flat surface regions which comprises hexagonal plane regions and pentagonal plane regions are formed on said outermost spherical surface and a dimple is disposed within said plurality of the flat surface regions wherein hexagonal units which are each formed by disposing six hexagonal plane regions closely about one hexagonal plane region are arranged on the spherical surface of the ball.

18. The golf ball of claim 14 wherein hexagonal plane regions are closely disposed over a spherical surface area of the golf ball excluding the pentagonal units.

19. The golf ball of claim 1 wherein the dimple is formed with a side and a bottom which are both contoured by curves protruding inward.

20. The golf ball of claim 1 wherein the dimple is formed with a bottom which extends substantially parallel to the flat surface region and a side which extends relatively sharply from an edge of the dimple and merges with the bottom.

21. The golf ball of claim 1 wherein the dimple is formed with a bottom which extends substantially concentric with a spherical surface of the ball and a side which extends relatively sharply from an edge of the dimple and merges with the bottom.

22. The golf ball of claim 2 wherein the polygonal shape includes triangular, quadrangular, pentagonal and hexagonal shapes.

23. The golf ball of claim 11 wherein the dimple has a diameter of 1 to 6 mm.

24. The golf ball of claim 11 wherein the dimple has a depth of 0.05 to 0.4 mm.

EVIDENCE APPENDIX:

None.